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L6: Entry 3 of 5

File: USPT

Dec 10, 2002

US-PAT-NO: 6493735

DOCUMENT-IDENTIFIER: US 6493735 B1

TITLE: Method system and computer program product for storing bi-directional language data in a text string object for display on non-bidirectional operating systems

DATE-ISSUED: December 10, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kumhyr; David Bruce	Fuguay-Varina	NC		

US-CL-CURRENT: 715/536; 345/703

## ABSTRACT:

For languages requiring bidirectional (left-to-right and right-to-left) text display support, a multi-field text string object encapsulates both a normal logical ordered version of the text string entered and a reverse ordered version in separate fields. A bidirectional-support property of the multi-field text string object is set based on whether the host system supports bidirectional text displays. In response to a display request, the multi-field text string object checks the bidirectional-support property. If bidirectional text display is supported, the multi-field text string object sets the field containing the normally-ordered character sequence for the text string as the display field. If bidirectional text display is not supported, the multi-field text string object sets the field containing the reverse-ordered character sequence for the text string as the display field. Display controls receiving the normally-ordered character sequence should display the text string with the proper directionality (right-to-left). Display controls receiving the reverse-ordered character sequence will display the display field contents with the incorrect directionality (left-to-right) but, as a result of the character sequence reversal, will effectively display the text string with the proper directionality. Bidirectional text may thus be displayed on systems which do not support bidirectional text display, using only conventional, left-to-right only directional display controls.

21 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

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File: USPT

Oct 30, 2001

US-PAT-NO: 6311190

DOCUMENT-IDENTIFIER: US 6311190 B1

TITLE: System for conducting surveys in different languages over a network with survey voter registration

DATE-ISSUED: October 30, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bayer; Leonard Robert	Rochester	NY		
Mott; John Jason	Rochester	NY		
Radielovic; Albina	Rochester	NY		
Beer; Frederick Anton Eilers	Rochester	NY		

US-CL-CURRENT: 707/104.1; 455/2.01, 705/12, 707/10, 709/203, 715/536

## ABSTRACT:

A system for conducting surveys to voters in multiple different languages and registering voters is provided over a network, such as the Internet. The system includes a programmed computer system representing at least one network server which provides an addressable voting site and registration site on the network, and a database storing voting information for building surveys in multiple languages and recording the results of the surveys, and registration information for building registration questionnaires and recording the results of the questionnaires. The network server accesses and updates the records of multiple tables of the database through a transaction server connected to the database. In response to a computer of a voter connecting to the network server over the network, the network server determines the language and country of the voter, and then dynamically constructs a survey in the voter's language in accordance with the voting information stored in the database. The survey is transmitted in a survey form page to the voter's computer which enables the voter to answer each question and to submit such answers back to the network server. The received answers to the questions are added to records in the database tallying the totals for each response answered for each question for the country of the voter, and the total number of voters answering each question for the country of the voter. A summary of the results of the survey for the country of the voter, or for other countries, is then constructed and transmitted to the voter's computer. The system may support multiple voting campaigns having surveys. The system allows voters, or other registrants, to register at one of the registration campaigns at the registration site, which may be linked to a voting campaign, by constructing a registration questionnaire based on the registration information stored in the database, and sending the questionnaire in a registration form page in the voter's language to the voter to complete and return to the network server for storage of the voter's registration data.

36 Claims, 67 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 27

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L6: Entry 2 of 5

File: USPT

Mar 25, 2003

US-PAT-NO: 6539118

DOCUMENT-IDENTIFIER: US 6539118 B1

TITLE: System and method for evaluating character sets of a message containing a plurality of character sets

DATE-ISSUED: March 25, 2003

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Murray; Brendan P.	Marblehead	MA		
Takizawa; Kuniaki	Kawasaki			JP

US-CL-CURRENT: 382/229; 382/218, 704/8, 715/536

## ABSTRACT:

An evaluator system accepts input textual messages in unknown languages and assesses which character sets, corresponding to languages, matches that message. Textual messages whose individual characters are encoded in 16 bit Unicode of other universal format are parsed, and character sets which can express each character and the accumulated correspondence is logged. When the character sets against which the message is being tested only provide partial matches, the invention can determine which offers the best fit, including by way of a weighting function. The evaluation technology of the invention can be applied to multipart documents, and to search engines and indices.

32 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 7